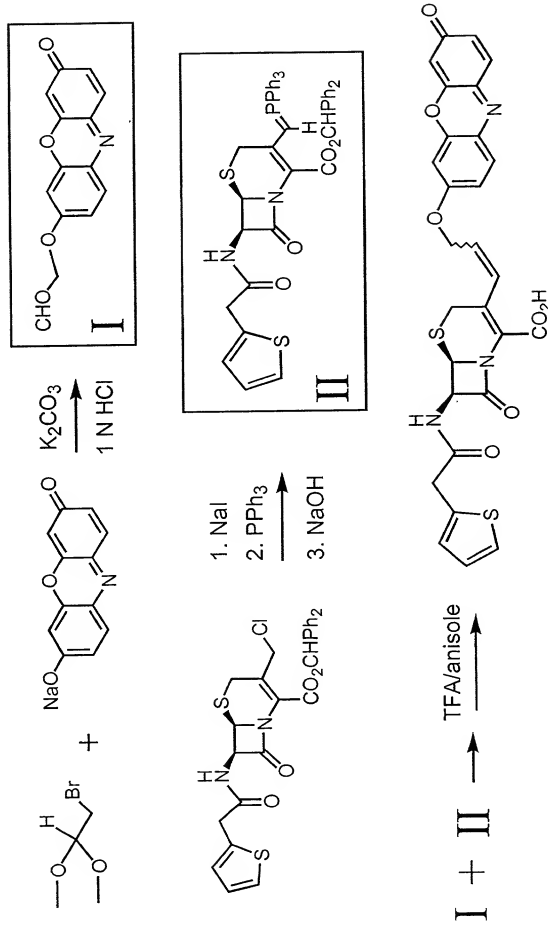
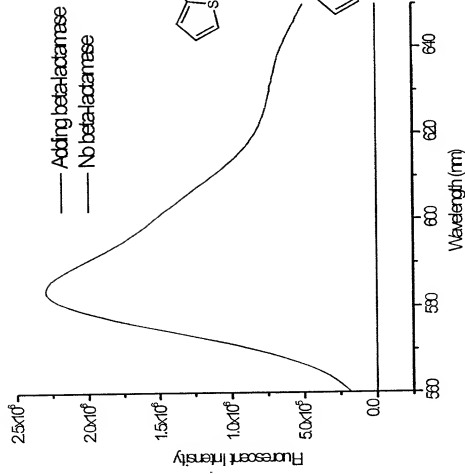


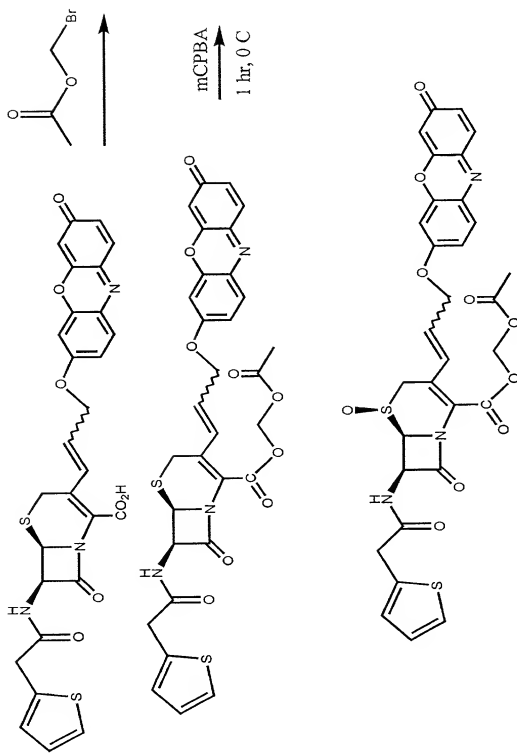
The new substrate is synthetically easily accessible



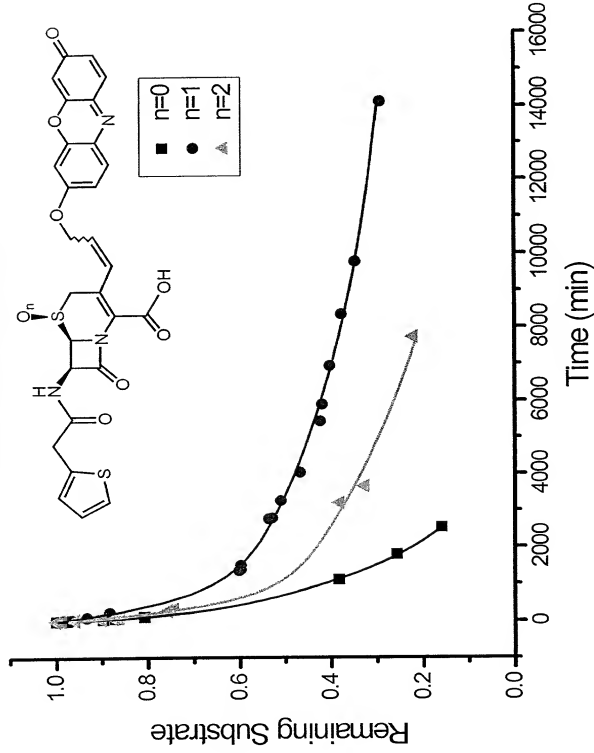
new substrate



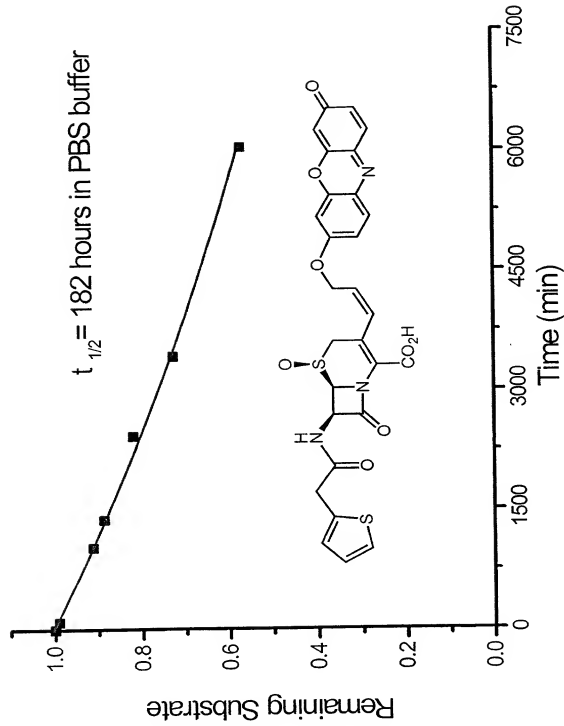
Synthesis of RECTO



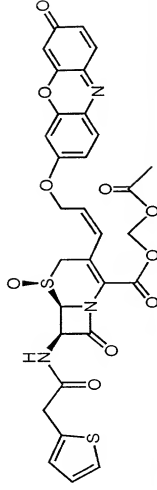
Oxidation state of the sulfide affects stability of the substrate



Sulfoxide increases substrate stability



Increased resorufin deposition in β -lactamase-transfected vs. wild type cells

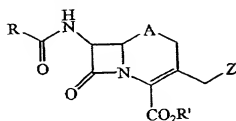


BLA-transfected C6 glioma cells

WT C6 glioma

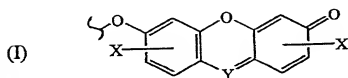


cephalosporin-phenol ethers that we wish to claim:



Preferred R = benzyl, 2-thienylmethyl, or cyanomethyl; A = S or SO; R' = H or physiologically acceptable salts or ester groups.

where Z can be:



where X = H, F, Cl, Br, CO₂R';
Y = N, CH, C-CN, C-CF₃

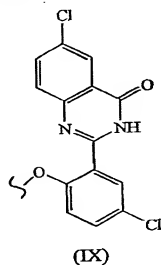
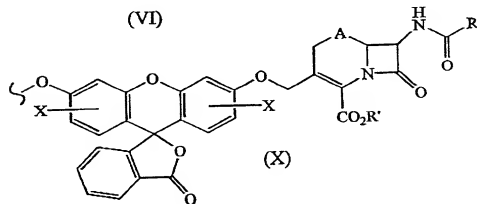
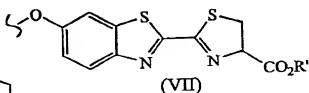
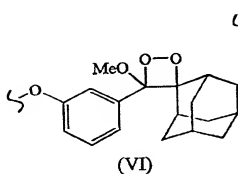
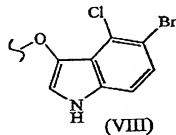
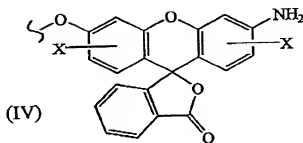
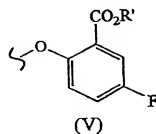
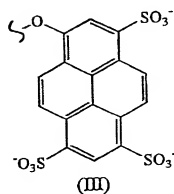
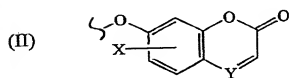


FIG. 7

Resorufin-cephalosporin cleaved by β -lactamase

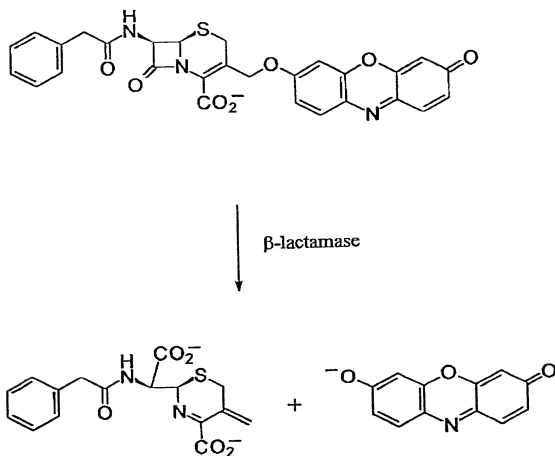
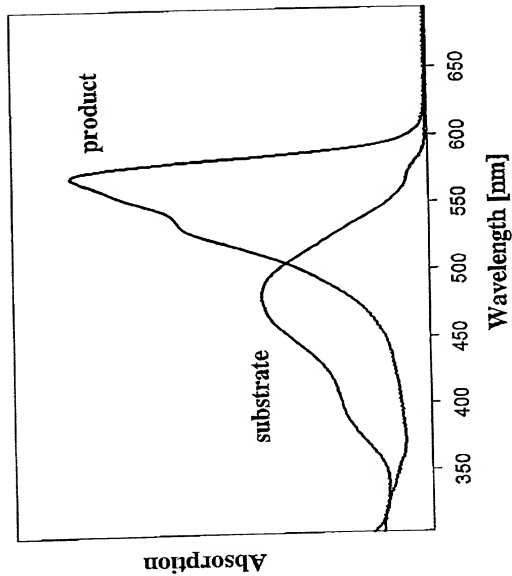


FIG. 8

Absorption spectra of resorufin-cephalosporin before and after β -lactamase treatment



**Fluorescence emission of resorufin-cephalosporin
before and after β -lactamase treatment
(excitation at 570 nm)**

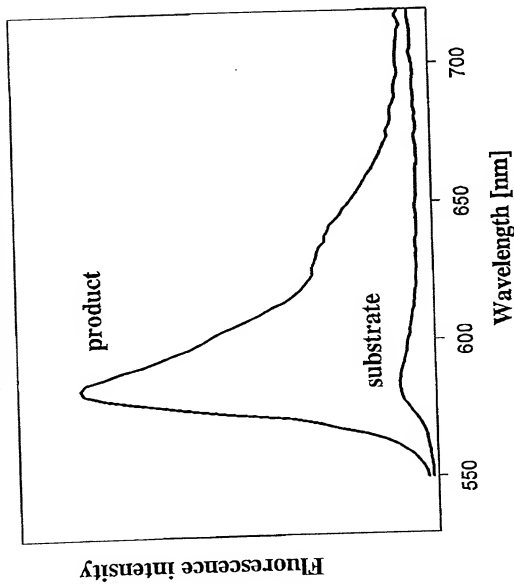


FIG. 10